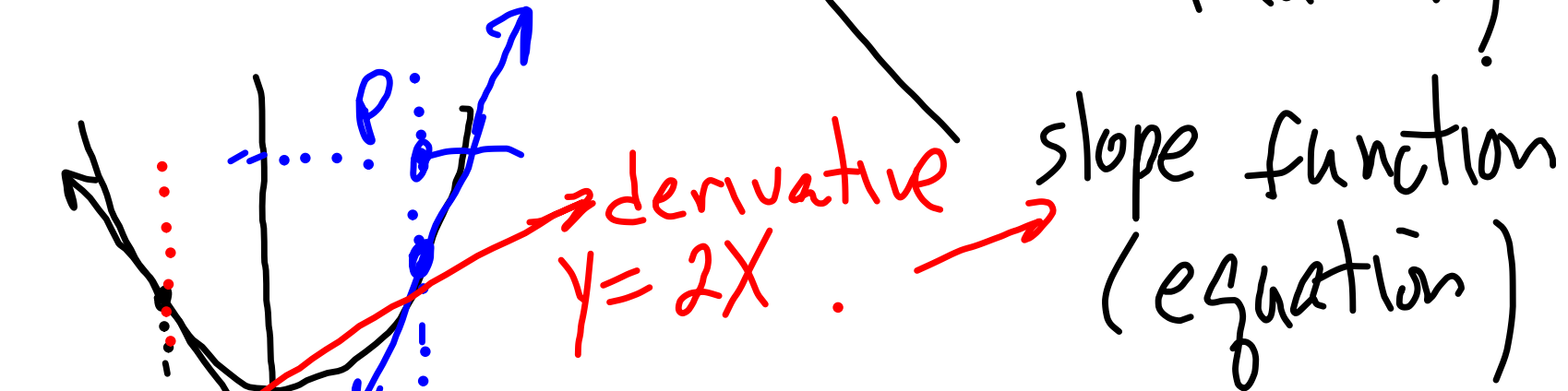
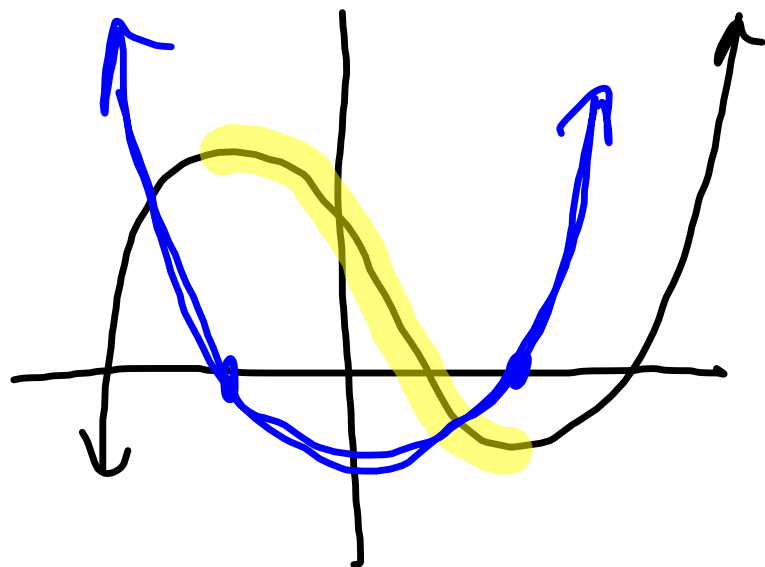


3.1 derivatives — slope of tan line (number)

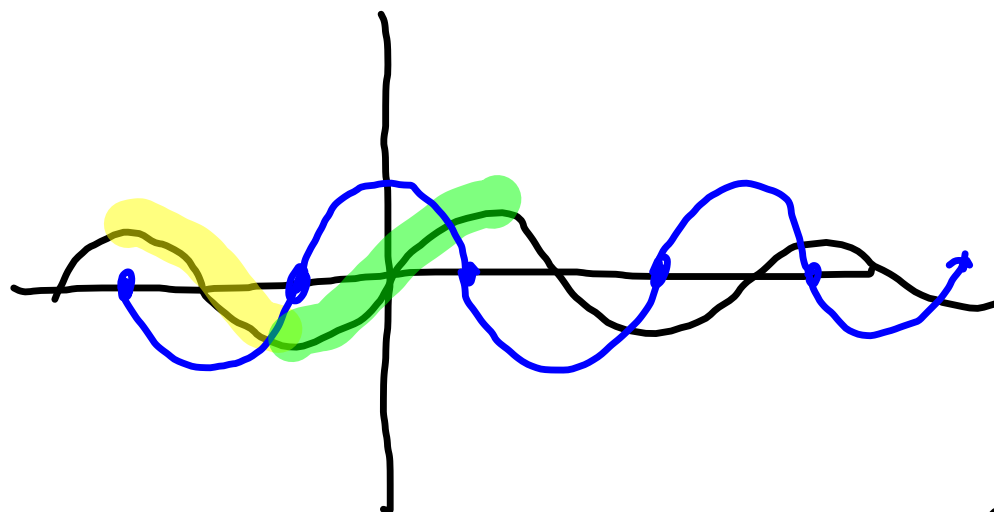


slope = -4  
(derivative)

different derivatives  
for different values of  $x$

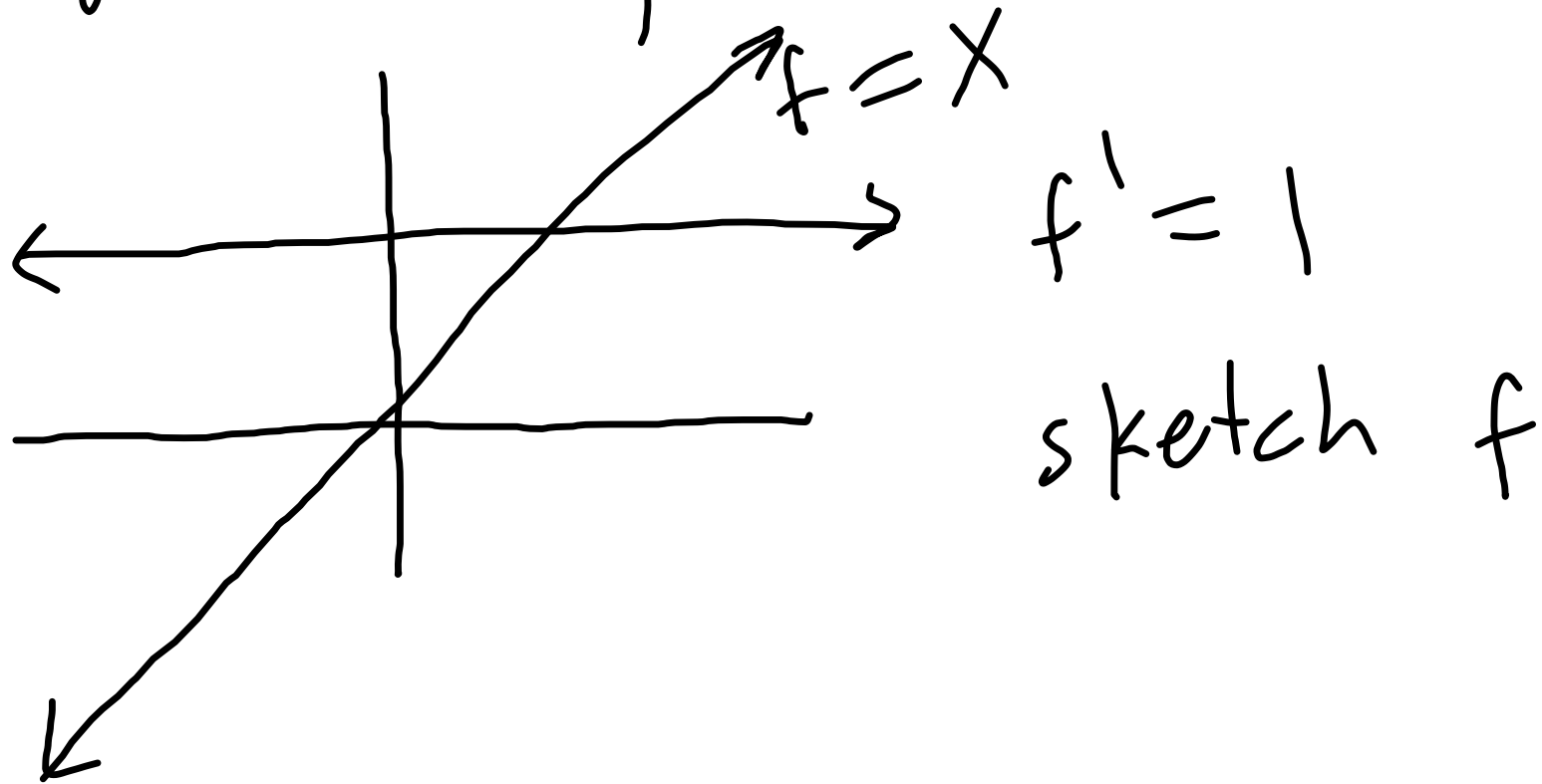


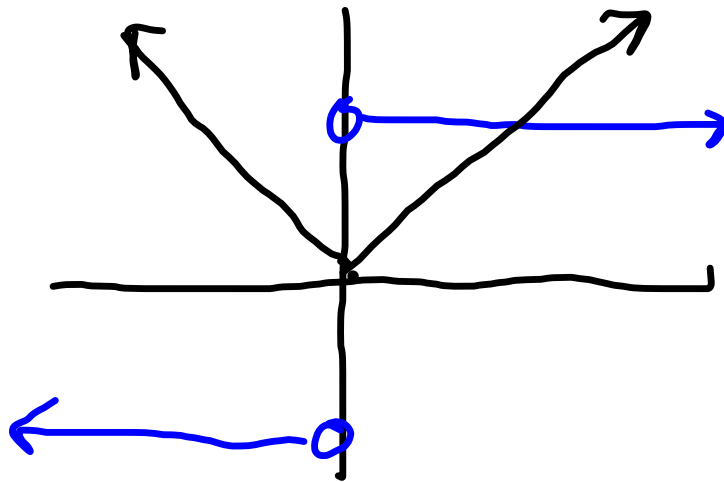
$f$   
 sketch  $f'$   
 (derivative)



$f$   
 sketch  $f'$

given  $f'$ , reconstruct  $f$





$f'$

sketch  $f$

$$f = |x|$$